Drilling holes in asbestos insulating board (AIB)

This information sheet sets out safe work techniques when you need to drill into asbestos insulating board (AIB). This is often done when fittings need to be attached or when cables or pipework need to pass through AIB.

AIB is highly friable. When disturbed, the risk of releasing asbestos fibres is much greater than with non-friable asbestos, especially if the AIB is unsealed or in poor condition. If the AIB you need to work on is unsealed, unpainted, or in poor condition you will need to use additional control measures to keep yourself and others safe. Consider engaging a competent person such as a Class A licensed asbestos removalist to provide advice and/or do the work.

Read this information sheet alongside Working with or near asbestos – good practice guidelines which sets out seven steps for doing asbestos-related work.

Before you start

Tools and equipment you will need

Make sure you have all the standard equipment you need for doing asbestos-related work. See Sections 5.3 and 7.0 of Working with or near asbestos – good practice guidelines for details.

You will also need the following equipment:

- H-class (high hazard) vacuum cleaner. Do not use domestic or general-purpose vacuum cleaners, even those with high-efficiency particulate air (HEPA) filters
- hand drill or power drill, set at the lowest speed

- drill bit or hole cutter for holes bigger than 20mm diameter
- something to capture the dust and debris, either:
  - H-class (high hazard) vacuum cleaner with drill shroud attachment. Do not use domestic or general-purpose vacuum cleaners, even those with high-efficiency particulate air (HEPA) filters
  - a thickened substance such as petroleum jelly, hair gel, asbestos encapsulant spray or shaving foam, and a disposable plastic cup (shroud) to contain drilling debris
- permanent sealant
- plastic or metal sleeve to protect hole edges
- wet wipes or a bucket of water (with added detergent) and clean rags
- adhesive tape
- asbestos waste bags and labels.

Isolate the work area

Take steps to stop unauthorised people from entering the work area while the work is underway and until the area has been decontaminated at the end of the job:

- put barriers and signs up to keep people away from the work area
- close all access points – such as doors, windows or gates
- move items out of the way or cover and seal them with heavy-duty plastic sheeting, also use the sheeting on the ground/floor under and around the work area. This will save you having to decontaminate the items later.
- set up your decontamination area.

See Section 6.0 of Working with or near asbestos – good practice guidelines for more detailed instructions.

Put on your PPE and RPE

Make sure you are wearing the right PPE and RPE. See Section 7.0 in Working with or near asbestos – good practice guidelines for more detailed instructions.

To see more on RPE and PPE, watch these videos How to wear a disposable respirator safely and How to wear a reusable respirator safely

Doing the job

Safe work steps

Cover the drilling point and the other side (if accessible) with adhesive tape to prevent the edges crumbling. For cable and pipework, make the hole slightly bigger than needed.

There are two recommended methods based on the amount of drilling needed, the size of the holes being made, and the thickness of the AIB.

METHOD 1:
Drilling 1 to 5 holes up to 20mm in diameter in board less than 6mm thick

Step 1

Cover the drill entry point and, if accessible, exit point with adhesive tape (to prevent the edges crumbling) and either:

Step 2a

Use a drill shroud along with a thickened substance to contain drilling debris:

- cover drill entry/exit point with a generous amount of a thickened substance
- attach the shroud to the drill and also fill with the thickened substance (see Figure 1).

or

Step 2b

Use a drill shroud attached to an H-class vacuum cleaner to capture drilling debris:

Attach vacuum cleaner to the shroud and switch vacuum cleaner on. Place shroud over the area where drilling is to take place.

Step 3

Drill using your chosen method so that it captures any dust and debris. For cable and pipework, make the hole slightly bigger than needed. If you are using a power drill, use the lowest speed setting (see Figures 2 and 3).

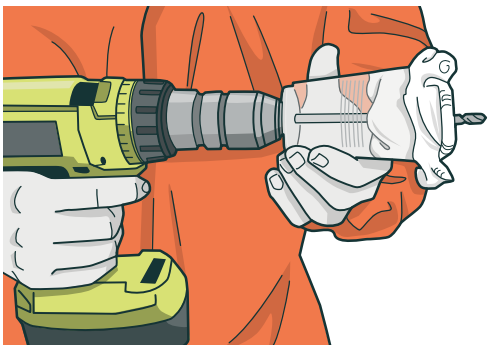
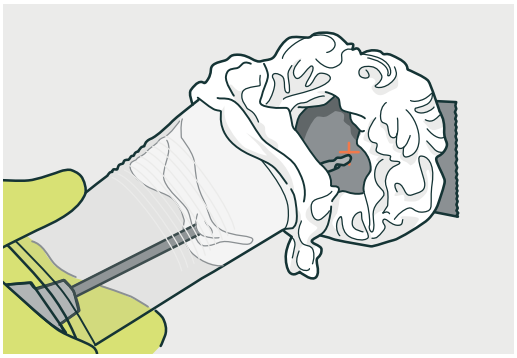


FIGURE 1: Power drill with plastic cup (shroud) filled shaving cream



FIGURES 2 AND 3: Drilling hole using chosen method to capture dust

Step 4

Clean the exit point (if accessible). If the exit point is not accessible (such as within a wall cavity) tell the building owner that there may be asbestos dust trapped behind where the work was done.

Step 5

Seal the drilled edge with permanent sealant (see Figure 4). Insert a plastic or metal sleeve to protect hole edges – especially if pipework or cabling is to be inserted.

METHOD 2:
Drilling 6 to 20 holes, or any hole over 20mm in diameter, or drilling through board more than 6mm thick

Step 1

Cover the drill entry point and, if accessible, exit point with adhesive tape (to prevent the edges crumbling).

Step 2

Attach vacuum cleaner to the shroud and switch vacuum cleaner on. Place the drill shroud over the drill point. Put the drill bit of the hole cutter through the shroud opening.

Step 3

Drill while making sure the shroud is catching all dust and debris. For cable and pipework, make the hole slightly bigger than needed. Set the drill to the lowest speed setting (see Figure 4).

Step 4

Vacuum the drilled hole, and the other side of the board if accessible. If the exit point is not accessible (such as within a wall cavity) tell the building owner that there may be asbestos dust trapped behind where the work was done.

Step 5

Seal the drilled edge with permanent sealant (see Figure 5). Insert a plastic or metal sleeve to protect hole edges – especially if pipework or cabling is to be inserted.

FIGURE 4: Drilling holes in AIB using drill shroud and H-class vacuum cleaner

FIGURE 5: Seal drilled edges with sealant

Once you have finished

Clean up and waste disposal

Put all disposable materials used during the work (such as polythene sheeting) in the asbestos waste bag then double bag it and tape it closed with a gooseneck tie. Clearly label it as containing asbestos.

- Video: Disposing of asbestos waste and PPE safely
- See Section 10 of Working with or near asbestos – good practice guidelines for more detailed instructions.

Thoroughly decontaminate the work area and all reusable tools and equipment used during the work.

- Video: How to decontaminate tools safely
- See Section 9 of Working with or near asbestos – good practice guidelines for more detailed instructions.

Personal decontamination

You must thoroughly decontaminate yourself.

- Video: Taking off your respirator and PPE safely
- See Section 9 of Working with or near asbestos – good practice guidelines for more detailed written instructions.

Final checks

- Visually inspect the area to make sure it is clean.

Note: These safe work techniques reflect recommended good practice. You can carry out this work using different practices, but you need to achieve or exceed the same levels of safety provided by these practices.

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